

# Glossary

**Accommodate change** – a class of adaptation response (alongside resist change and direct change) in which the target (resource, asset, system, or process) responds to climate change, and management may support its capacity to do so but does not aim to steer the target back towards past conditions or move it towards a strictly-defined desired future state.

**Adaptation** – adjustment in natural or human systems in anticipation of or response to a changing environment in a way that effectively reduces negative effects or uses opportunities.

**Adaptive capacity** – the ability of a resource, asset or process to adjust to climate change (including climate variability and extremes), i.e. to moderate potential damages, to take advantage of opportunities, or to cope with the consequences.

**Adaptive management** – a systematic approach for improving management by learning from management outcomes. The approach involves exploring alternative ways to meet management objectives, predicting the outcomes of alternatives based on current state of knowledge, implementing one or more of these alternatives, monitoring to learn about the impacts of management actions, and then using the results to update knowledge and adjust management actions.

**Anthropogenic** – made by people or resulting from human activities. Usually used in the context of emissions that are produced as a result of human activities.

**Carbon sequestration** – terrestrial, or biologic, carbon sequestration is the process by which trees and plants absorb carbon dioxide, release the oxygen, and store the carbon.

**Climate** – climate in a narrow sense is usually defined as the “average weather,” or more rigorously, as the statistical description in terms of the mean and variability of relevant quantities over a period of time ranging from months to thousands of years. The classical period is 3 decades, as defined by the World Meteorological Organization (WMO). These quantities are most often surface variables such as temperature, precipitation, and wind. Climate in a wider sense is the state, including a statistical description, of the climate system.

**Climate change** – climate change refers to any significant change in the measures of climate lasting for an extended period of time. In other words, climate change includes major changes in temperature, precipitation, or wind patterns, among others, that occur over several decades or longer.

**Climate model** – a quantitative way of representing the interactions of the atmosphere, oceans, land surface, and ice. Models can range from relatively simple to quite comprehensive.

**Coral bleaching** – the process in which a coral colony under environmental stress expels the microscopic algae (zooxanthellae) that live in symbiosis with their host organisms (polyps). The affected coral colony appears whitened.

**Direct change** – the focus of a class of adaptation response (alongside resist change and accommodate change) in which the target (resource, asset, system, or process) is actively managed towards a specific desired new condition.

**Ecosystem services** – the conditions and processes through which natural ecosystems, and the species that make them up, sustain and fulfill human life.

**Exposure** – magnitude of change in climate and other stressors that a resource, asset, or process has already or may experience in the future.

**Inundation** – the submergence of land by water, particularly in a coastal setting.

**Isostatic rebound** – the movement of land masses in response to the massive weight of continental glaciers. As glaciers melt, the land rises slightly, unburdened by the ice load.

**Mitigation (climate change context)** – human intervention to reduce the human impact on the climate system; it includes strategies to reduce greenhouse gas sources and emissions and enhancing greenhouse gas sinks.

**Mitigation (emergency response context)** – the effort to reduce loss of life and property by lessening the impact of disasters.

**Monumentation** – a control station and its coordinates established by geodetic methods and permanently marked with a brass disk, metal rod driven to refusal (or 80 ft), cement or stone platform, or other permanent structure with the purpose of making consistent relative measurements and tying these measurements to the most recent horizontal and vertical datum.

**Nature-based features** – features that mimic characteristics of natural features but are created by human design, engineering, and construction to provide specific services such as coastal risk reduction.

**Ocean acidification** – increased concentrations of dissolved carbon dioxide gas in sea water causing a measurable increase in acidity (i.e., a reduction in ocean pH). This may lead to reduced calcification rates of calcifying organisms such as corals, mollusks, algae, and crustaceans.

**Permafrost** – perennially (continually) frozen ground that occurs where the temperature remains below freezing for several years.

**Persistence** – current/past target (resource, asset, system, or process) conditions continue to exist, either because the target is inherently resistant to change or because of adaptation efforts to resist change.

**Phenology** – the timing of natural events, such as flower blooms and animal migration, which is influenced by changes in climate. Phenology is the study of such important seasonal events. Phenological events are influenced by a combination of climate factors, including light, temperature, rainfall, and humidity.

**Recovery (Incident Command System context)** – a set of policies and procedures to enable continuation of vital park management following a natural or human-induced disaster.

**Relative sea level rise** – the increase in ocean water levels at a specific location, taking into account both global sea level rise and local factors, such as local subsidence and uplift. Relative sea level rise is measured with respect to a specified vertical datum relative to the land, which may also be changing elevation over time.

**Resilience (community context)** – capability to anticipate, prepare for, respond to, and recover from significant multi-hazard threats with minimum damage to social well-being, the economy, and the environment. Note that this term has been misused as a synonym for adaptation in some contexts, but is used in this document with this specific definition.

**Resilience (ecological context)** – the ability to return to a previous state after disturbance.

**Resistance** – the ability to withstand perturbations without significant loss of structure or function.

**Resist change** – the focus of a class of adaptation response (alongside accommodate change and direct change) in which current/past target (resource, asset, system, or process) conditions are maintained.

**Response (Incident Command System context)** – organized approach to addressing and managing the aftermath of an incident. The goal is to handle the situation in a way that limits damage and reduces recovery time and costs.

**Salt water intrusion** – displacement of fresh or ground water by the advance of salt water due to its greater density, usually in coastal and estuarine areas.

**Scenario planning** – scenarios are plausible, internally consistent stories about the future that help us incorporate scientific uncertainty into our thinking; scenario planning is a tool to challenge us to consider how we would operate under novel conditions.

**Sensitivity** – degree to which a resource, asset, or process is or could be affected, either adversely or beneficially, by climate variability or change.

**Storm surge** – a rise of water level generated by a storm, over and above the predicted astronomical tide.

**Subsidence** – the downward shift of the land surface relative to its surroundings.

**Sustainability** – the conditions under which humans and nature can exist in productive harmony, that permit fulfilling the social, economic, and other requirements of present and future generations.

**Vulnerability** – the degree to which a resource, asset or process is susceptible to adverse effects of climate change, including climate variability and extremes. Vulnerability is a function of the character, magnitude, and rate of climate variation to which a system is exposed; its sensitivity; and its adaptive capacity.